

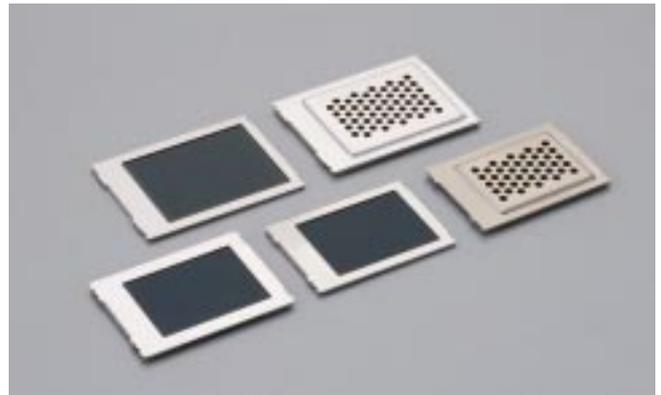
Piezoelectric Speaker



VSLBP/VSLBF Series

■ Features

- High Quality Sound & High Sound Pressure Level
- Ultra thin styling.
 VSLBP Series: Thickness=1.2mm
 VSLBF Series: Thickness=0.5mm
 Side ventilation housing enables ultimate thickness reduction.
- Save battery power.
- No magnet-free from iron sand inhalation problem.
- No electromagnetic noise.
- Available for waterproof (IPX7)*



■ Applications

Hand Held Phone / PDA / Solid State Audio / IC Recorder / DSC etc.



■ Standard Specifications

Item	Specifications	
	VSLBP1913E1400-T0/VSLBF1913E1400-T0	VSLBP2115E1200-T0/VSLBF2115E1200-T0
Rated Frequency Range	200Hz to 20kHz	200Hz to 20kHz
Sound Pressure Level	92.0dB±3.0dB * ¹	93.5dB±3.0dB * ²
Resonant Frequency	1400Hz±20%	1200Hz±20%
Capacitance	0.9μF±30%	1.5μF±30%
Maximum Sinusoidal Voltage	5.0Vrms	5.0Vrms
Operating Temperature Range	-20 to +70°C	-20 to +70°C
Storage Temperature Range	-30 to +85°C	-30 to +85°C

Measurement Condition of Sound Pressure Level: *¹ Input Signal=5.0Vrms, Sine Wave, at 100mm, Average at 1.5k, 2.0k, 2.5k, 3.0kHz

*² Input Signal=5.0Vrms, Sine Wave, at 100mm, Average at 1.0k, 1.25k, 1.5k, 2.0kHz

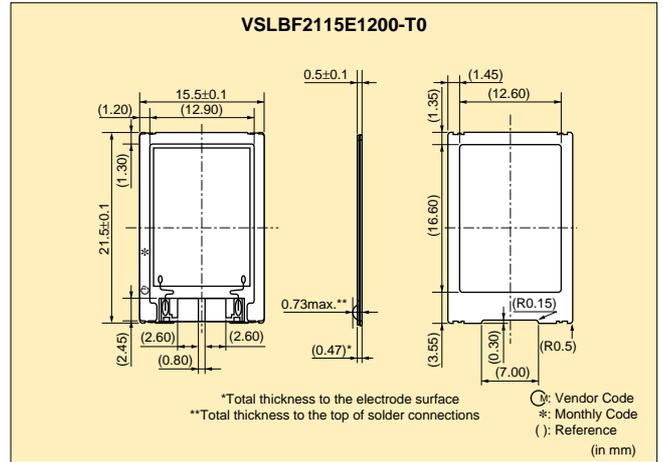
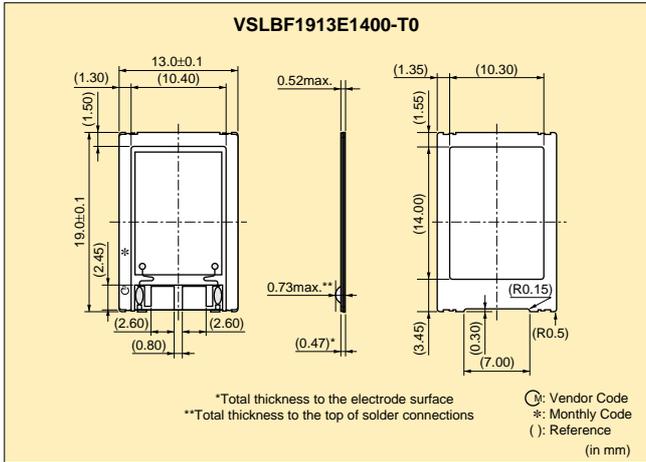
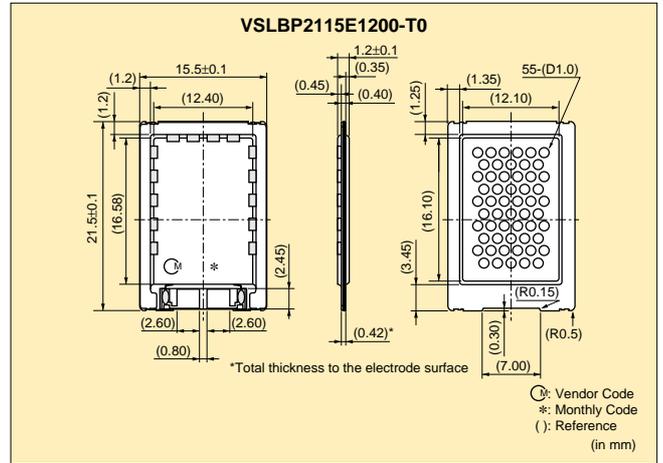
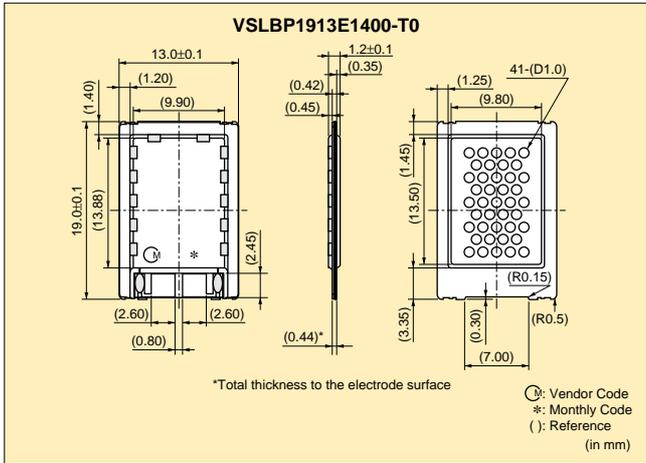
Measurement Condition of Capacitance: 0.1Vrms, at 120Hz

Maximum sinusoidal signal voltage continuously - for 240 hours - applicable to the speaker.

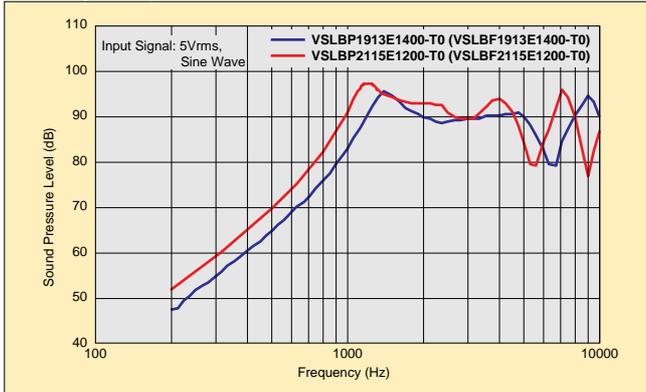
* A Water proof type: VSLBG Series is also available.

Please contact your most convenient Murata window for more information.

■ Dimensions



■ Frequency Characteristics of Sound Pressure Level



Measurement Condition of Sound Pressure Level: Input Signal: 5.0Vrms, Sine Wave, at 100mm

Back Cavity: VSLBP1913E1400-T0 (VSLBF1913E1400-T0)=0.7cc, VSLBP2115E1200-T0 (VSLBF2115E1200-T0)=1.0cc

for EU RoHS Compliant

- All the products in this catalog comply with EU RoHS.
- EU RoHS is "the European Directive 2002/95/EC on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment".
- For more details, please refer to our website 'Murata's Approach for EU RoHS' (<http://www.murata.com/info/rohs.html>).

△Note:

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- | | |
|-----------------------------|--|
| ① Aircraft equipment | ② Aerospace equipment |
| ③ Undersea equipment | ④ Power plant equipment |
| ⑤ Medical equipment | ⑥ Transportation equipment (vehicles, trains, ships, etc.) |
| ⑦ Traffic signal equipment | ⑧ Disaster prevention / crime prevention equipment |
| ⑨ Data-processing equipment | ⑩ Application of similar complexity and/or reliability requirements to the applications listed above |

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4. Please read rating and △ CAUTION (for storage, operating, rating, soldering, mounting and handling) in this catalog to prevent smoking and/or burning, etc.

5. This catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

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7. No ozone depleting substances (ODS) under the Montreal Protocol are used in our manufacturing process.